

Application Number 10/588,532
AMENDMENT dated January 28, 2010
Response to Office Action dated November 24, 2009

REMARKS/ARGUMENT

The Applicants respond under 37 C.F.R. § 1.111 to the Office Action of November 24, 2009.

Claims 9 through 20 are pending in the application. Claim 18 is withdrawn from consideration, claims 1 through 8 are canceled, and new claim 20 is added.

A new Terminal Disclaimer accompanies this response. The Official Fee was PAID and charged to the deposit account identified above. No additional fee is due for the Terminal Disclaimer.

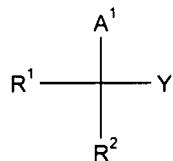
An Information Disclosure Statement accompanies this response. The statement identifies citations from the Applicants' co-pending U.S. Application No. 10/587,802. This co-pending application is the subject of the Terminal Disclaimer. The Information Disclosure Statement authorizes payment of the Official Fee.

Claims 9 through 17 and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 2001/11965 (Cooke et al.) in view of WO 2003/041501 (Wegmann et al.), and further in view of Stenzel et al., *Brighton Crop Protection Conference-Pests and Diseases*, Vol. 2, pp. 367-74 (1998), and Leroux et al., *Pest Management Science*, Vol. 58, pp. 876-88 (2002). The Applicants traverse this rejection and request reconsideration.

For convenience, in responding to this Office Action, Applicants refer to the U.S. equivalents of the two PCT publications: U.S. Patent No. 6,821,992 to Cooke et al. and U.S. Patent No. 7,288,555 to Wegmann et al.

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Cooke et al. disclose compounds of general formula I,



where A¹, R¹, R² and Y are as defined in the description; and to their use as phytopathogenic fungicides.

It has been pointed out in the second paragraph of the present specification that international patent application WO 01/11965 generically discloses numerous pyridylethylbenzamide derivatives and that the possibility of combining one or more of these numerous pyridylethylbenzamide derivatives with known fungicidal products to develop a fungicidal activity is disclosed in general terms, without any specific example or biological data. Applicants do not deny that the broad disclosure of Cooke et al. reads on N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide, but do not believe this compound, *per se*, is mentioned.

It is submitted that there is no teaching or suggestion in Cooke et al. of the synergistic effect obtained when these pyridylethylbenzamide derivatives are combined with compounds capable of inhibiting the spores germination or mycelium growth by acting on different metabolic routes.

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Previously, the Examiner acknowledged that Cooke et al. does not specifically teach:

that the N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide compound is combined with the additional agent in a weight ratio range from 0.01 to 20;

that N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide can be combined with a dicarboxamide derivative in a fungicidal composition;

that the dicarboxamide derivative in the composition is chlozolinate, iprodione, procymidone, or vinclozolin;

that N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide can be combined with a phthalimide derivative;

that N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide can be combined with a phthalimide derivative such as captan;

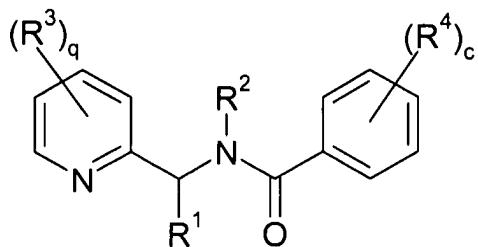
that N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide can be combined with a compound capable of inhibiting fungal spore germination or mycelium growth, such as cymoxanil; or

that an additional compound (c) selected from diethofencarb, hexaconazole, cyprodinil, tebuconazole, or bromuconazole can be employed.

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Wegmann et al. disclose fungicidal compositions comprising:

(a) at least one pyridylmethylbenzamide derivative of the formula:



in which R¹ is chosen from a hydrogen atom, an optionally substituted alkyl radical and an optionally substituted acyl radical; R² is chosen from a hydrogen atom and an optionally substituted alkyl radical; R³ and R⁴, which are identical or different are independently chosen from a halogen atom, the hydroxyl radical, the cyano radical, the nitro radical, the radical -SF₅, the trialkylsilyl radical, an optionally substituted amino radical, an acyl radical, and a group E, OE or SE, in which E is chosen from an alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl radical, it being possible for each of them to be optionally substituted; c represents 0, 1, 2, 3 or 4; q represents 0, 1, 2, 3 or 4; and their agriculturally acceptable possible optical and/or geometric isomers, tautomers and addition salts with an acid or a base; and

(b) at least one compound (II) of the valinamide type, and their agriculturally acceptable isomers and addition salts with an acid.

The Applicants acknowledge that compounds of the 2-pyridylethylbenzamide type, which are employed in the compositions of the present invention, have fungicidal action and are

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disclosed and claimed in U.S. Patent No. 7,572,818. The Applicants also acknowledge that dicarboximide derivatives, such as chlozolinate, iprodione, procymidone and vinclozolin; phthalimide derivatives, such as captafol, captan, folpet and thioclorfenphim; as well as those compounds specifically mentioned in claim 14 above are known fungicides. However, it is the Applicants' position that they have discovered a combination that clearly exhibits synergism and is neither disclosed nor suggested by the cited art. They have demonstrated this synergism for this combination in the examples of the specification, using means for determining synergism that is accepted in the art, i.e., the Colby formula, which was published in the journal 15 WEEDS 20-22 (1967). Unexpected results have been shown for the claimed combination and it logically follows from this that the combination cannot be obvious.

The Examiner has stated:

The pyridylmethyl benzamide compounds taught by Wegmann et al. of formula (I), in which the R¹=H, and R²=H, are homologues of the instantly claimed compounds, in that they differ by a -CH₂- moiety between the pyridyl ring and the benzamide nitrogen. Compounds which are homologues are expected to have similar chemical and physical properties, absent unexpected results.

The Examiner in the prosecution of U.S. Patent No. 7,572,818, referred to above, made a similar argument:

The difference between the prior art [i.e., Moloney et al.] compound and the instantly claimed compound is the alkylene group between the pyridyl group and the benzamide moiety. In the instant compound, alkylene group is ethylene. In the prior art compound, alkylene group is a methylene group. The prior art compound and the instant compound are homologues of each other. Homologues are compounds that differ by a methylene linkage. Here, the Moloney compounds are also fungicides as are the instant compounds. See line 4 of page 2.

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It would have been obvious to one of ordinary skill in the art to synthesize homologues of this class of compounds and compositions. Accordingly, the compounds are deemed unpatentable therefrom in the absence of a showing of unexpected results for the claimed compounds over those of the generic prior art compounds.

The Applicants in that case, in response thereto, submitted the following experimental data to show unexpected results that demonstrate the benefits in terms of fungicidal activity of an ethylene group linking the pyridyl and benzamide moiety with each other, rather than a methylene group:

Compound		<i>Botrytis cinerea</i>	<i>Alternaria brassicae</i>
According to the invention of U.S. 7,572,818		Good to very good activity (80-100%) at 330 ppm	Good to very good activity (80-100%) at 330 ppm
Compound 1 of U.S. 6,503,933 (Moloney et al.)		No activity at 330 ppm	No activity at 330 ppm

The Applicants in that case argued that this finding would have been surprising to the person of ordinary skill in the art and would not have been rendered obvious by Moloney et al., and submitted a Declaration Under Rule 132 in support of the data.

Similarly, it is submitted that the teaching of Wegmann et al. is insufficient to supplement the deficiencies of Cooke et al. as a reference against the patentability of the present invention.

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It is the Applicants understanding that the additional secondary references, Stenzel et al. and Leroux et al., have been cited to show that certain compounds that are capable of inhibiting the spores germination or mycelium growth by acting on different metabolic routes and are within the scope of the present invention are known in the art. As noted above, Applicants do not deny this, but, rather, take the position that the cited art does not disclose their combination with a pyridylethylbenzamide derivative selected from the group consisting of:

N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide;

N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-iodobenzamide; and

N-{2-[3,5-dichloro-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide;

and the N-oxides of 2-pyridine thereof; the claimed subject matter of the present invention.

Thus, in the present application, the Applicants have discovered a novel and unobvious combination of fungicides that exhibits a synergistic effect that allows a reduction of the chemical substances spread into the environment and a reduction of the cost of the fungal treatment. The combination of the present invention enables a reduction in the doses of chemical products spread in the environment in order to control fungal attacks of crops, in particular by reducing the doses of the products for application, and increases the number of antifungal products available to farmers for them to find among them the fungicidal agent best suited to their particular use. These advantages are neither taught nor disclosed by the cited art.

Accordingly, it is requested that the rejection of claims 9 through 17 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Cooke et al. in view of Wegmann et al., and further in view of Stenzel et al and Leroux et al., be withdrawn.

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Claims 9 through 17 and 19 have been provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 9, 12 through 19, and 21 of co-pending U.S. Patent Application No. 10/587,802 in view of Leroux, 47 PEST. SCI., 191-97 (1996.)

As pointed out in the Office Action, a timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. Such a disclaimer was filed by the Applicants on 10/26/2009; however, that disclaimer has not been accepted because, according to the Examiner:

An attorney or agent , not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 C.F.R 1.34(a). See 37 C.F.R. 1.321(b) or (c). The assignee has not established its ownership interest in the application, in order to support the terminal disclaimer. There is no submission in the record establishing the ownership interest by . . . specifying (by reel and frame number) where such documentary evidence is recorded in the Office (37 CFR 3.73(b)).

The assignment of the present application has been recorded in the Office on October 12, 2006, on Reel 019118 at Frame 0923.

The present application and U.S. Patent Application No. 10/587,802 are commonly owned by Bayer Cropscience S.A., 16 Jean-Marie Leclair, F-69009, Lyon, France.

A corrected Terminal Disclaimer Under 37 C.F.R. § 1.321(b) and (c) disclaiming, with the customary exceptions, the terminal part of the statutory term of any patent granted on the instant application that would extend beyond the expiration date(s) of the full statutory term(s) of any patent(s) issued on U.S. Patent Application No. 10/587,802 is filed herewith.

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Accordingly, it is requested that the provisional rejection of claims 9-17 and 19 on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1, 2, 4 through 9, 18, and 19 of U.S. Patent Application No. 10/587,802 in view of Leroux be withdrawn.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration is requested.

Respectfully submitted,



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